

A Northern Australian Volute

BY TOM IREDALE.

Mr. Melbourne Ward collected a quantity of shells, beach material, at Boucaut Bay, eastern side of the mouth of the Liverpool River, Mid Arnhem Land, North Australia. This material included many valves of two bivalves, whose facies was unfamiliar, and these proved to be representatives of two groups, not previously recognised among the large collections made on the north-eastern coast of Australia. It is known that Torres Strait divides two distinct faunulas, that of the west being known as the Dampierian Region, a subdivision of the Solanderian Regon. The latter eastern faunula is further subdivided into the Solanderian Province, restricted, and the Banksian Province. All are sections of the huge Indo-Pacific Area, the Solanderian showing more affinity with the Pacific forms, the Dampierian leaning to the Indian section, but forming quite a distinctive minor subsection. The Volutes of the Dampierian are intriguing as there is a group *Amoria* which is well represented by a number of closely related species, well defined, but suggesting only subspecific status. There are other groups of Volutes also, such as *Cymbiola*, *Aulica* and *Volutoconus*. These were indicated by Hedley (Proc. Linn. Soc. N.S.W., Vol. xxxix, p. 723, 1915), the first named including *nivosa* and its associates, the second *flavicans* with its allies, the last named having as type *coniformis*, to which *bednalli* was allotted, probably incorrectly. The species here dealt with would come under *Aulica*, of which *aulica* is the type. Many dead specimens were in the Boucaut Bay material, and these were recognised as the form, known locally as *tissotiana*, a rare species. Upon checking this name a curious history was disclosed. In 1867, Crosse (Journ. de Conch, Vol. xv, p. 195, pl. VI, fig. 1, April) had described the species, without definite locality, but stated that the type had been a long time in the collection of M. de Robillard, of Mauritius, whence it had recently passed into the possession of M. Tissot, after whom it was named. Apparently the locality was Mauritius or the neighbourhood, but certainly not Northern Australia, which at that time was quite inaccessible. The acceptance of the name *tissotiana*, was due to Brazier, who wrote to Crosse, that specimens had been collected near the Liverpool River, Arnhem Land, during the expedition into that territory by Captain Cadell. Crosse reported this identification (made by Brazier from the figure only) (Journ. de Conch, Vol. xix, p. 297, Oct., 1871) and it has been accepted since. There has been doubt as specimens in the Australian Museum from the North Alligator River had been identified as *mariaemma*, and others from north-west Australia as *flavicans* var *signifer*. The last named had been described by Broderip (Proc. Zool. Soc. (Lond.) 1847, p. 232) from the Ind. Oceano orientale? from the Cuming Collection received from Dr. Dalen of Rotterdam, said to have come from the East Indies. The Volute, named *mariaemma* by Gray (Proc. Zool. Soc. (Lond.) 1859, p. 230, pl. 48) came from Singapore, and was renamed *grayae* by Crosse (Journ. de Conch, Vol. xix, p. 287, 1871) who objected to the name selected by Gray on grounds of purism only. This seems to be a different species. However the Australian specimens while having a superficial resemblance to the Mauritius *tissotiana* do not completely agree, and moreover *signifer* would seem to have priority as well as locality preference. Cotton (Rec. South Aust. Mus., Vol. ix, pp. 181-196, pls. xiii-xvi, May 31, 1949) published some notes on the Australian Recent and Tertiary Volutes and figures *tissotina* (sic) from North Australia, commenting "*Cymbiola scafa* and *C. tissotina* are probably nodular and smooth forms of the same species," figuring *scafa* on pl. xiii, fig. (7) and *tissotina* on pl. xiii, fig. (2). The numerous

specimens of the smooth shell, so far, have never shown any signs of intergradation, and may be regarded as a distinct species which may be named.

AULICA QUAESITA, sp. nov.

The shell is of medium size, stout, spire medium, about half the breadth, smooth with four strong plicae. Coloration of a dead shell is whitish, but the living shell is cream, marked with red brown, a row of blotches below the suture, irregular markings in an interrupted band about the middle of the whorl, a similar band of red streaks lower. The type is the larger specimen figured, the smaller figure is of a more boldly marked younger shell. There are four adult whorls, succeeding a flattened apical tip of about three smooth whorls, the initial tip very small. The whorls are gently rounded, sutures marked, the body-whorl comprising the bulk of the shell. The aperture is about three-quarters the length of the shell, at first narrowly oval with the outer lip thin, then broadening, the outer lip expanding and thickening, the canal broad, open. Outer lip sinuate posteriorly, semi-canalicate. Inner lip slight. Length 82 mm.; breadth 45 mm.; spire 22 mm.

Holotype and paratype in the Australian Museum, Sydney.

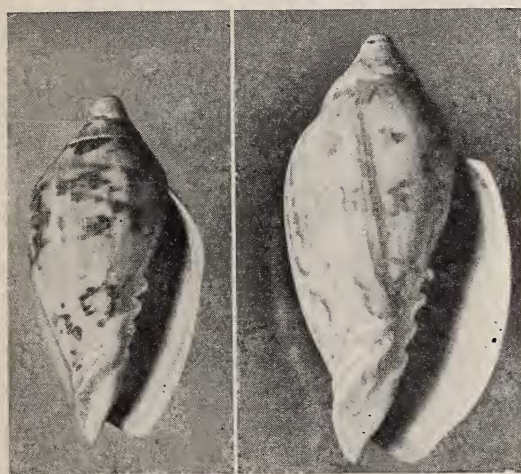


Figure 1.—*Aulica quaesita* Iredale. Left, paratype; right, holotype, from Boucaut Bay, Northern Territory.

G. C. Clutton photo.